ABSTRACT OF THE DISCLOSURE

A hologram that can obtain high diffraction efficiency when reconstructed and is superior in productivity is provided. An arbitrary object image and a recording surface in which representative points are disposed with predetermined pitches are defined by use of a computer. At the position of each individual representative point, a complex amplitude for the wave front of object light emitted from the object image is calculated, and a complex amplitude distribution is calculated on the recording surface. This complex amplitude distribution is expressed by a three-dimensional cell having a groove in the surface thereof. Four kinds of groove depths are defined in accordance with the phase θ, and seven kinds of groove widths are defined in accordance with the amplitude A. Thereby, 28 kinds of three-dimensional cells in total are prepared, and a three-dimensional cell corresponding to the phase θ and amplitude A of the complex amplitude for the representative point is disposed at the position of each representative point. One of the 28 kinds of three-dimensional cells is disposed at the position of each representative point on the recording surface, and thereby a hologram-recording medium is formed as a set of three-dimensional cells. A reconstructed image is obtained by the phase/amplitude modulating function of the groove part of each cell.